## SUBJECT INDEX

Achievement motivation, high school, models 43-57 Achievement Objective Test 92, 96 Adult-child interaction, internalization 101-118 Algebra, graphic representation 303-319

CARLA, self-regulation in learning from instructional text 290, 291, 294, 298 Cognitive apprenticeship 323, 340 Cognitive conflict 200, 216, 219, 221, 236, 260 Cognitive factors, group problem solving 186 Cognitive growth, social processes 216 Cognitive interactions 156 Cognitive training programs, impulsive students 89-100 Collaborative behavior 221 Comprehension gist 78 reading 70 Computer-assisted instruction creative problem solving 263 self-regulation 323, 324 WP-DAGOGUE 328 Computer-assisted learning 156 Computer-assisted video-reconstruction, self-regulatory learning behavior 290, 294 Computer-based activities, teachers' interventions 339-355

Computer-based instruction in writing 217, 226, 234

Computers, cooperative learning 155–159, 275–280, 349
creativity and social relationships 259–274
gender pairings 199–213
interdependence and autonomy 239–257
more local theories 281
physics 161–183
problem solving in primary school 185–197, 199–213
social cognitive behaviours 215–238

Computer-Supported Intentional Learning
Environments 128
Computer supported physics teaching, group
interaction 161–183
Concept maps 129
Concept of self 61
Conceptual knowledge, group interaction in

physics teaching 161

Concurrent instructional shell, WP-DAGOGUE 324 Condensing 74, 81 Cooperative learning with computers 155-159, 275-280, 349 creativity and social relationships 259-274 gender pairings 199-213 interdependence and autonomy 239-257 more local theories 281 physics 161-183 problem solving in primary school 185-197, 199-213 regulation training 325 social-cognitive behaviors 215-238 Creativity, cooperative Logo environments 259-274 Covington and Omelich model of achievement motivation 44

Degree examinations, understanding in revising 1-22

Depth of Processing Test 144, 147

Direct instruction, reading 70

Disabled learners, transfer training 85, 86

Drawing/writing 38

Dweck and Elliot's model of achievement motivation 43, 56

Culture, internalization 102

Elaborated HyperComments 132
Examinations
achievement motivation 45
understanding in revising 1-22
Expectations and performance 51
Expressions transformations, graphic representation in algebra 303

Failure 45, 46, 47, 51, 52, 55 Fear of failure 47, 53

Gender, interaction and performance on computer-based problem solving task 199-213, 254
Gist comprehension 78, 79, 82, 84

Gist learning 78, 79, 83, 85
Goal-adaptive self-regulation 288
Good Strategy User model, self-regulation 288, 290
Graphic representation, algebra 303–319
Grapho-phonological conception of writing 27
Group interaction
cognitive benefits 186
computer-supported physics teaching 161–183
interdependence and autonomy 239–257
microcomputer-based problem solving, primary school 185–197
Group Investigation 156
Guided-Logo 263, 266, 271
Guided practice 71

Helplessness 45, 47, 51
Higher education, understanding in revising for examinations 1–22
Higher-order thinking, social-cognitive behaviors in computer environments 215, 229, 235
Homes task 243, 244
Homunculi 226
HyperComments 134
Hypermedia, learning programming 119–139
Elaborated HyperComments 132
HyperComments 134
Lisp Perspective Library 128
Lisp Template Library 127
Pascal Template Library 124

Implicit memory 143
Important messages, identification 74, 75, 81
Impulsivity-related achievement problems,
cognitive training programs 89–100
Incidental learning, verbal ability 141–153
Individualism 340
Informed training 323
Initial Assessment Test 93, 97
Instructional text, self-regulation in learning
from 288
Intelligence, incidental learning and verbal
ability 141–153
Interaction and internalization 101–118
Internalization, adult–child interaction 101–118
Intersubjectivity 104
Inventory of Learning Processing 150
IRAT 265, 270

Jigsaw 155

KANE 126 Kinematic principles, group interaction in computer-supported teaching 161–183 Knowledge, metacognitive 64 Learning
approaches to 2, 13
conceptions 2
intelligence 141
understanding 1–22
Learning-Together 155
Letters task 242
Lisp 123, 126, 134, 136
Lisp Perspective Library 128
Lisp Template Library 127
LOGO 126, 157, 210, 342
groupwork 242, 259–274
social-cognitive behaviours 217, 225, 234
teachers' intervention 344

MAPE-II 48 Matching Familiar Figures test 89, 92 Mathematics, groupwork with computers 239, 243 Memory 16 Metacognition reflection-impulsivity 90 self-reflection 64 self-regulation 288 Metacognitive training, reading skills 70, 72 Metacomponential processing 224, 226, 229, 262 Microcomputers, group problem solving 185-197 Milliken's Writing Workshop 226 Model and Guide 76 Motivation 46, 52 achievement, models 43-57 self-regulation 291 Multiple representation of functions 307, 317

National Curriculum, microcomputer-based group problem solving 185 Neo-Vygotskian perspective 340, 352

Paintspa 345 Parent-child interaction 103, 108 Pascal Template Library 124, 137 Peer facilitation 240, 254 Peer interactions, computer environments 157, 217, 234, 275 Perspectives, Lisp 128 Phenomenographic analysis of psychological concepts 62 Physics, group interaction in computer-supported teaching 161-183 Primary schools, microcomputer-based group problem solving 185-197 Prior knowledge, activation and utilization 74, 81 Problem solving cooperative Logo environments 259-274, 266, 271 groups 185, 261 interaction, gender and performance 199-213 Problem-solving training 91, 93, 95 Programming, hypermedia tools 119-139 Pseudocode 120

Pupil-managed groups 254 Pupil-teachers, groupwork 254 Puzzle construction task 105, 115

Reading
CARLA 294
effect of thinking aloud 69–88
Reciprocal sense-making 216
Reciprocal teaching 66
Recycling, programming 121, 136
Reference, adult-child interaction 104
Reflection 59–68
metacognition 63
self 62
training 65
Reflection-impulsivity 89
Regulation learning 324, 334
Revising for examinations, understanding 1–22

Scaffolding 71, 323, 334, 335, 342, 347, 351, 352 hypermedia 120, 137 Scheme 126 Self-consciousness 61 Self-instruction 91, 93, 95 Self-reflection 59, 61, 62 Self-regulation 115 learning from instructional text 287–301 training programs 322, 323, 334 Self-worth theory 56 Semantic interpretation, graphic representation in algebra 304, 312 Situated learning 340 SLANT 343, 344 Social-cognitive behaviours computer environments 215-238 cooperative learning 282 Social relationships, cooperative Logo environments 259–274 SOLVE 263, 266, 271 Spokes task 243 STAIRWAY 226 Strategies, self-regulation 288 Student Teams Achievement Division 155 Syntactic manipulation, graphic representation in algebra 303, 312

Talk for learning 343
Talk, group performance 186, 191, 193

Task relevant concurrent verbalization 186
Teachers role in computer environments 278, 339–355
Teaching-and-learning 345, 352
Teaching, understanding in revising 17
Team Games Tournament 155
Templates, programming instruction 120, 136
Lisp 127
Pascal 124
Text-processing strategies 73, 75, 77, 79, 80, 84
Thinking aloud, development of reading skills 71–88
Torrance Test of Creative Thinking 265
Training of reflective skills 65
Transfer of training 69, 77, 82, 84
Transfer Task 191, 194
TRANSFORMER 306–312

Understanding, revising for degree examinations 1-22 concept 3 developing 10 forms of 12, 20 influences of teaching 17 nature of 7, 18

Verbal ability, incidental learning 141–153
Verbal interaction computer-based problem solving 186, 191, 193, 204, 207, 278
social cognitive behaviors 231
Vocabulary tests 145
Vygotsky, L. S. 102, 340

Wechsler Adult Intelligence Scale 145
Weiner's model of achievement motivation 43
Wertsch, J. V. 102
WordPerfect, WP-DAGOGUE 328
Word processor, learning to use 324–336
Word recognition 24
WP-DAGOGUE 324, 327, 336
Writing
computer-based instruction 217, 226, 234
in preliterate children 23–41

Zone of proximal development 341, 349, 353 Logo environments 260



